

10/08/456

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* * * * * * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 Jul 12 BEILSTEIN enhanced with new display and select options,
resulting in a closer connection to BABS
NEWS 4 Jul 30 BEILSTEIN on STN workshop to be held August 24 in conjunction
with the 228th ACS National Meeting
NEWS 5 AUG 02 IFIPAT/IFIUDB/IFICDB reloaded with new search and display
fields
NEWS 6 AUG 02 CAplus and CA patent records enhanced with European and Japan
Patent Office Classifications
NEWS 7 AUG 02 The Analysis Edition of STN Express with Discover!
(Version 7.01 for Windows) now available
NEWS 8 AUG 04 Pricing for the Save Answers for SciFinder Wizard within
STN Express with Discover! will change September 1, 2004
NEWS 9 AUG 27 BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 10 AUG 27 BIOTECHABS/BIOTECHDS: Two new display fields added for legal
status data from INPADOC
NEWS 11 SEP 01 INPADOC: New family current-awareness alert (SDI) available
NEWS 12 SEP 01 New pricing for the Save Answers for SciFinder Wizard within
STN Express with Discover!
NEWS 13 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 14 SEP 14 STN Patent Forum to be held October 13, 2004, in Iselin, NJ

NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:02:14 ON 25 SEP 2004

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
|------------------|---------------|

FULL ESTIMATED COST

1.26

1.26

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, AQUALINE, ANABSTR, ANTE,
AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
CROPUB, DISSABS, DDFB, DDFU, DGENE, ...' ENTERED AT 11:05:42 ON 25 SEP 2004

74 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s sialyltransferase

| | |
|------|------------------|
| 9 | FILE ADISCTI |
| 1 | FILE ADISINSIGHT |
| 37 | FILE AGRICOLA |
| 20 | FILE ANABSTR |
| 8 | FILE AQUASCI |
| 11 | FILE BIOBUSINESS |
| 13 | FILE BIOCOMMERCE |
| 48 | FILE BIOENG |
| 1854 | FILE BIOSIS |
| 192 | FILE BIOTECHABS |
| 192 | FILE BIOTECHDS |
| 855 | FILE BIOTECHNO |
| 101 | FILE CABA |
| 693 | FILE CANCERLIT |
| 2212 | FILE CAPLUS |
| 40 | FILE CEABA-VTB |
| 2 | FILE CEN |
| 4 | FILE CIN |
| 58 | FILE CONFSCI |
| 95 | FILE DISSABS |
| 24 | FILE DDFB |
| 46 | FILE DDFU |
| 793 | FILE DGENE |
| 24 | FILE DRUGB |
| 52 | FILE DRUGU |
| 4 | FILE EMBAL |
| 1586 | FILE EMBASE |
| 635 | FILE ESBIOBASE |
| 30 | FILE FEDRIP |
| 5 | FILE FROSTI |
| 5 | FILE FSTA |
| 1321 | FILE GENBANK |

43 FILES SEARCHED...

| | |
|------|------------------|
| 136 | FILE IFIPAT |
| 264 | FILE JICST-EPLUS |
| 417 | FILE LIFESCI |
| 1909 | FILE MEDLINE |
| 2 | FILE NIOSHTIC |
| 5 | FILE NTIS |
| 1 | FILE OCEAN |
| 635 | FILE PASCAL |
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| 1679 | FILE SCISEARCH |
| 551 | FILE TOXCENTER |
| 671 | FILE USPATFULL |
| 18 | FILE USPAT2 |
| 107 | FILE WPIDS |
| 2 | FILE WPIFV |
| 107 | FILE WPINDEX |

50 FILES HAVE ONE OR MORE ANSWERS, 74 FILES SEARCHED IN STNINDEX

L1 QUE SIALYLTRANSFERASE

=> d rank

| | | |
|-----|------|-------------|
| F1 | 2212 | CAPLUS |
| F2 | 1909 | MEDLINE |
| F3 | 1854 | BIOSIS |
| F4 | 1679 | SCISEARCH |
| F5 | 1586 | EMBASE |
| F6 | 1321 | GENBANK |
| F7 | 855 | BIOTECHNO |
| F8 | 793 | DGENE |
| F9 | 693 | CANCERLIT |
| F10 | 671 | USPATFULL |
| F11 | 635 | ESBIOBASE |
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| F29 | 30 | FEDRIP |
| F30 | 24 | DDFB |
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| F33 | 18 | USPAT2 |
| F34 | 13 | BIOCOMMERCE |
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| F36 | 10 | PROMT |
| F37 | 9 | ADISCTI |
| F38 | 8 | AQUASCI |
| F39 | 5 | FROSTI |
| F40 | 5 | FSTA |
| F41 | 5 | NTIS |
| F42 | 4 | CIN |
| F43 | 4 | EMBAL |
| F44 | 2 | CEN |
| F45 | 2 | NIOSHTIC |
| F46 | 2 | PROUSDDR |
| F47 | 2 | WPIFV |
| F48 | 1 | ADISINSIGHT |
| F49 | 1 | OCEAN |
| F50 | 1 | PHIN |

=> file f1-f5, f7, f9-f13

COST IN U.S. DOLLARS

FULL ESTIMATED COST

| SINCE FILE
ENTRY | TOTAL
SESSION |
|---------------------|------------------|
| 1.14 | 2.40 |

FILE 'CAPLUS' ENTERED AT 11:07:06 ON 25 SEP 2004
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FILE 'TOXCENTER' ENTERED AT 11:07:06 ON 25 SEP 2004
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=> s 11 and (ST3Gal I)
L2 337 L1 AND (ST3GAL I)

=> s 12 and sialyl?
L3 337 L2 AND SIALYL?

=> s 13 and sialylat?
L4 175 L3 AND SIALYLAT?

=> s 14 and (large-scale or commercial scale)
1 FILES SEARCHED...
L5 23 L4 AND (LARGE-SCALE OR COMMERCIAL SCALE)

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=> dup rem 15
PROCESSING COMPLETED FOR L5
L6 23 DUP REM L5 (0 DUPLICATES REMOVED)

=> d 16 ibib ab 1-23

L6 ANSWER 1 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:184970 USPATFULL
TITLE: Glycoconjugation methods and proteins/peptides produced by the methods
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2004142856 | A1 | 20040722 |
| APPLICATION INFO.: | US 2003-410913 | A1 | 20030409 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING | | |

| | NUMBER | DATE |
|-----------------------|-----------------|---------------|
| PRIORITY INFORMATION: | US 2002-407527P | 20020828 (60) |
| | US 2002-407527P | 20020828 (60) |
| | US 2002-404249P | 20020816 (60) |
| | US 2002-396594P | 20020717 (60) |
| | US 2002-391777P | 20020625 (60) |
| | US 2002-387292P | 20020607 (60) |
| | US 2001-334301P | 20011128 (60) |
| | US 2001-334233P | 20011128 (60) |
| | US 2001-334692P | 20011121 (60) |
| | US 2001-328523P | 20011010 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 88
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 16544
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 2 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:178391 USPATFULL
TITLE: Remodeling and glycoconjugation of peptides
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|---------------|
| PATENT INFORMATION: | US 2004137557 | A1 | 20040715 |
| APPLICATION INFO.: | US 2002-287994 | A1 | 20021105 (10) |

RELATED APPLN. INFO.: Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

| | NUMBER | DATE |
|-----------------------|-----------------|---------------|
| PRIORITY INFORMATION: | US 2002-407527P | 20020828 (60) |
| | US 2002-404249P | 20020816 (60) |
| | US 2002-396594P | 20020717 (60) |
| | US 2002-391777P | 20020625 (60) |
| | US 2002-387292P | 20020607 (60) |
| | US 2001-334301P | 20011128 (60) |
| | US 2001-334233P | 20011128 (60) |

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS: 447

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 345 Drawing Page(s)

LINE COUNT: 16205

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 3 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2004:172476 USPATFULL

TITLE: Glycopeylation methods and proteins/peptides produced by the methods

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES

Zopf, David, Wayne, PA, UNITED STATES

Bayer, Robert, San Diego, CA, UNITED STATES

Bowe, Caryn, Doylestown, PA, UNITED STATES

Hakes, David, Willow Grove, PA, UNITED STATES

Chen, Xi, Lansdale, PA, UNITED STATES

PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2004132640 | A1 | 20040708 |
| APPLICATION INFO.: | US 2003-411012 | A1 | 20030409 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING | | |

| | NUMBER | DATE |
|-----------------------|-----------------|---------------|
| PRIORITY INFORMATION: | US 2002-407527P | 20020828 (60) |
| | US 2002-404249P | 20020816 (60) |
| | US 2002-396594P | 20020717 (60) |
| | US 2002-391777P | 20020625 (60) |
| | US 2002-387292P | 20020607 (60) |

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS: 77

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 497 Drawing Page(s)

LINE COUNT: 19255

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 4 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:165351 USPATFULL
TITLE: Follicle stimulating hormone: remodeling and glycoconjugation of FSH
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2004126838 | A1 | 20040701 |
| APPLICATION INFO.: | US 2003-410997 | A1 | 20030409 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING | | |

| | NUMBER | DATE |
|-----------------------|-----------------|---------------|
| PRIORITY INFORMATION: | US 2002-407527P | 20020828 (60) |
| | US 2002-404249P | 20020816 (60) |
| | US 2002-396594P | 20020717 (60) |
| | US 2002-391777P | 20020625 (60) |
| | US 2002-387292P | 20020607 (60) |
| | US 2001-334301P | 20011128 (60) |
| | US 2001-334233P | 20011128 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET,
PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS: 115
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19355

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 5 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:150947 USPATFULL
TITLE: Interferon beta: remodeling and glycoconjugation of interferon beta
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2004115168 | A1 | 20040617 |
| APPLICATION INFO.: | US 2003-410930 | A1 | 20030409 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING | | |

Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

| | NUMBER | DATE |
|-----------------------|---|---------------|
| PRIORITY INFORMATION: | US 2002-407527P | 20020828 (60) |
| | US 2002-404249P | 20020816 (60) |
| | US 2002-396594P | 20020717 (60) |
| | US 2002-391777P | 20020625 (60) |
| | US 2002-387292P | 20020607 (60) |
| | US 2001-334301P | 20011128 (60) |
| | US 2001-334233P | 20011128 (60) |
| | US 2001-344692P | 20011019 (60) |
| | US 2001-328523P | 20011010 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921 | |
| NUMBER OF CLAIMS: | 119 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 497 Drawing Page(s) | |
| LINE COUNT: | 19412 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 6 OF 23 USPATFULL on STN

| | |
|---------------------|--|
| ACCESSION NUMBER: | 2004:107626 USPATFULL |
| TITLE: | Interferon alpha: remodeling and glycoconjugation of interferon alpha |
| INVENTOR(S): | DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES |
| PATENT ASSIGNEE(S): | Neose Technologies, Inc. (U.S. corporation) |

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2004082026 | A1 | 20040429 |
| APPLICATION INFO.: | US 2003-411049 | A1 | 20030409 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING | | |

| | NUMBER | DATE |
|-----------------------|-----------------|---------------|
| PRIORITY INFORMATION: | US 2002-407527P | 20020828 (60) |
| | US 2002-404249P | 20020816 (60) |
| | US 2002-396594P | 20020717 (60) |
| | US 2002-391777P | 20020625 (60) |
| | US 2002-387292P | 20020607 (60) |
| | US 2001-334301P | 20011128 (60) |
| | US 2001-334233P | 20011128 (60) |
| | US 2001-344692P | 20011019 (60) |
| | US 2001-328523P | 20011010 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET,
PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS: 126

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 497 Drawing Page(s)

LINE COUNT: 19445

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes a multitude of methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 7 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2004:101966 USPATFULL

TITLE: Granulocyte colony stimulating factor: remodeling and glycoconjugation of G-CSF

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES

Zopf, David, Wayne, PA, UNITED STATES

Bayer, Robert, San Diego, CA, UNITED STATES

Bowe, Caryn, Doylestown, PA, UNITED STATES

Hakes, David, Willow Grove, PA, UNITED STATES

Chen, Xi, Lansdale, PA, UNITED STATES

PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2004077836 A1 20040422

APPLICATION INFO.: US 2003-410962 A1 20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser.

No. US 2003-360770, filed on 6 Jan 2003, PENDING

Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO

2002-US32263, filed on 9 Oct 2002, PENDING

NUMBER DATE

PRIORITY INFORMATION: US 2002-407527P 20020828 (60)

US 2002-404249P 20020816 (60)

US 2002-396594P 20020717 (60)

US 2002-391777P 20020625 (60)

US 2002-387292P 20020607 (60)

US 2001-334301P 20011128 (60)

US 2001-334233P 20011128 (60)

US 2001-344692P 20011019 (60)

US 2001-328523P 20011010 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET,
PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS: 111

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 497 Drawing Page(s)

LINE COUNT: 19316

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 8 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2004:83455 USPATFULL

TITLE: Protein remodeling methods and proteins/peptides produced by the methods

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES

PATENT ASSIGNEE(S) :

Zopf, David, Wayne, PA, UNITED STATES
 Bayer, Robert, San Diego, CA, UNITED STATES
 Hakes, David, Willow Grove, PA, UNITED STATES
 Chen, Xi, Lansdale, PA, UNITED STATES
 Neose Technologies, Inc. (U.S. corporation)

PATENT INFORMATION:

APPLICATION INFO.:

RELATED APPLN. INFO.:

| NUMBER | KIND | DATE |
|--|------|---------------|
| US 2004063911 | A1 | 20040401 |
| US 2003-411026 | A1 | 20030409 (10) |
| Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING | | |
| Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING | | |
| Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING | | |
| Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING | | |

PRIORITY INFORMATION:

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| US 2002-407527P | 20020828 (60) |
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| US 2002-396594P | 20020717 (60) |
| US 2002-391777P | 20020625 (60) |
| US 2002-387292P | 20020607 (60) |
| US 2001-334301P | 20011128 (60) |
| US 2001-334233P | 20011128 (60) |
| US 2001-344692P | 20011019 (60) |
| US 2001-328523P | 20011010 (60) |

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET,
PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS:

39

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

497 Drawing Page(s)

LINE COUNT:

18872

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 9 OF 23 USPATFULL on STN

ACCESSION NUMBER:

2004:57444 USPATFULL

TITLE:

Alpha galactosidase a: remodeling and glycoconjugation of alpha galactosidase A

INVENTOR(S) :

DeFrees, Shawn, North Wales, PA, UNITED STATES
 Zopf, David, Wayne, PA, UNITED STATES
 Bayer, Robert, San Diego, CA, UNITED STATES
 Bowe, Caryn, Doylestown, PA, UNITED STATES
 Hakes, David, Willow Grove, PA, UNITED STATES
 Chen, Xi, Lansdale, PA, UNITED STATES

PATENT ASSIGNEE(S) :

Neose Technologies, Inc. (U.S. corporation)

NUMBER KIND DATE

| NUMBER | KIND | DATE |
|---------------|------|----------|
| US 2004043446 | A1 | 20040304 |

APPLICATION INFO.:

| | | |
|----------------|----|---------------|
| US 2003-411037 | A1 | 20030409 (10) |
|----------------|----|---------------|

RELATED APPLN. INFO.:

| | | |
|--|--|--|
| Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING | | |
|--|--|--|

NUMBER DATE

| NUMBER | DATE |
|-----------------|---------------|
| US 2002-407527P | 20020828 (60) |
| US 2002-404249P | 20020816 (60) |

US 2002-396594P 20020717 (60)
US 2002-391777P 20020625 (60)
US 2002-387292P 20020607 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET,
PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 122
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 10 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2003:265833 USPATFULL
TITLE: Methods of modulating functions of polypeptide GalNAc-transferases and of screening test substances to find agents herefor, pharmaceutical compositions comprising such agents and the use of such agents for preparing medicaments
INVENTOR(S): Clausen, Henrik, Holte, DENMARK
Bennett, Eric Paul, Lyngby, DENMARK
Hassan, Helle, Frederiksberg, DENMARK
Reis, Celso Albuquerque, Vila Nova de Gaia, PORTUGAL
PATENT ASSIGNEE(S): Glycozym ApS, Horsholm, DENMARK (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2003186850 | A1 | 20031002 |
| APPLICATION INFO.: | US 2002-292896 | A1 | 20021112 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. WO 2001-DK328, filed on 10 May 2001, UNKNOWN | | |

| | NUMBER | DATE |
|-----------------------|--|---------------|
| PRIORITY INFORMATION: | US 2002-425204P | 20021108 (60) |
| | US 2000-203331P | 20000511 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257 | |
| NUMBER OF CLAIMS: | 68 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 18 Drawing Page(s) | |
| LINE COUNT: | 4417 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Attachment of O-glycans to proteins is controlled by a large family of homologous polypeptide GalNAc-transferases. Polypeptide GalNAc-transferases contain a C-terminal sequence with similarity to lectins. This invention discloses that the putative lectin domains of GalNAc-transferase isoforms, GalNAc-T4, -T7, -T2, and -T3, are functional and recognize carbohydrates, glycopeptides, and peptides and discloses the lectin domains of GalNAc-T1-T16. These lectin domains have different binding specificities and modulate the functions of GalNAc-transferase isoforms differently. Novel methods for identification of inhibitors or modulators of binding activities mediated by lectin domains of polypeptide GalNAc-transferases are disclosed. Direct binding activity of GalNAc-transferase lectins has been demonstrated for the first time and methods to measure lectin mediated binding of isolated lectins or enzymes with lectin domains are disclosed. The present invention specifically discloses a novel

selective inhibitor of polypeptide GalNAc-transferase lectin domains, which provides a major advancement in that this inhibitor and related inhibitors sharing common characteristics of activity bind lectin domains without serving as acceptor substrate for glycosyltransferases involved in synthesis of O-glycans. This inhibitor is represented by the β -anomeric configuration of GalNAc-benzyl, GalNAc β -benzyl. Methods for inhibiting intracellular transport, cell surface expression, and secretion of mucins and O-glycosylated glycoproteins without affecting O-glycosylation processing are disclosed using the novel selective inhibitor identified.

L6 ANSWER 11 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2003:265399 USPATFULL
TITLE: Nucleic acid that encodes a fusion protein
INVENTOR(S): Gilbert, Michel, Hull, CANADA
Young, N. Martin, Gloucester, CANADA
Wakarchuk, Warren W., Gloucester, CANADA
PATENT ASSIGNEE(S): National Research Council of Canada, Ottawa, CANADA, K1A0R6 (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2003186414 | A1 | 20031002 |
| APPLICATION INFO.: | US 2002-317428 | A1 | 20021211 (10) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1998-211691, filed on 14 Dec 1998, PENDING | | |

| | NUMBER | DATE |
|-----------------------|--|---------------|
| PRIORITY INFORMATION: | US 1997-69443P | 19971215 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 | |
| NUMBER OF CLAIMS: | 35 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 4 Drawing Page(s) | |
| LINE COUNT: | 2369 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides fusion polypeptides that include a glycosyltransferase catalytic domain and a catalytic domain from an accessory enzyme that is involved in making a substrate for a glycosyltransferase reaction. Nucleic acids that encode the fusion polypeptides are also provided, as are host cells for expressing the fusion polypeptides of the invention.

L6 ANSWER 12 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2003:257877 USPATFULL
TITLE: Fusion protein comprising a UDP-Galnac 4' epimerase and a galnac transferase
INVENTOR(S): Gilbert, Michel, Hull, CANADA
Young, N. Martin, Gloucester, CANADA
Wakarchuk, Warren W., Gloucester, CANADA
PATENT ASSIGNEE(S): National Research Council of Canada, Ottawa, CANADA, K1A0R6 (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2003180928 | A1 | 20030925 |
| APPLICATION INFO.: | US 2002-317773 | A1 | 20021211 (10) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1998-211691, filed on 14 Dec 1998, PENDING | | |

| | NUMBER | DATE |
|--|--------|------|
| | | |

L16 ANSWER 30 OF 37 USPATFULL on STN
ACCESSION NUMBER: 2001:142130 USPATFULL
TITLE: **Sialyltransferases**
INVENTOR(S): Kapitonov, Dmitri, 1327 Spruce St., Apt. 5E,
Philadelphia, PA, United States 19107
Yu, Robert K., 306 Cheswick, Richmond, VA, United
States 23229

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 6280989 | B1 | 20010828 |
| APPLICATION INFO.: | US 1999-334601 | | 19990617 (9) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | GRANTED | | |
| PRIMARY EXAMINER: | Patterson, Jr., Charles L. | | |
| LEGAL REPRESENTATIVE: | Millen White Zelano & Branigan | | |
| NUMBER OF CLAIMS: | 13 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 26 Drawing Figure(s); 24 Drawing Page(s) | | |
| LINE COUNT: | 2057 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to **isolated sialyltransferases**, such as human or mouse GM3 synthase, human or mouse 4ST3GalVI, or human 7STGalNAcV **sialyltransferase** polypeptide, biologically-active polypeptide fragments thereof, and nucleic acids which code for it. This polypeptide has various activities including **sialyltransferase** activity. The invention relates to all aspects of **sialyltransferase**, or homologs thereof, including assays for modulators, activators, ligands, etc. The invention also relates to **sialyltransferases** expressed in cells and methods of using such cells to engineer specific sugar chains.

L16 ANSWER 31 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2000:193716 CAPLUS
DOCUMENT NUMBER: 133:102935
TITLE: Altered mRNA expression of glycosyltransferases in human colorectal carcinomas and liver metastases
AUTHOR(S): Petretti, T.; Kemmner, W.; Schulze, B.; Schlag, P. M.
CORPORATE SOURCE: Department of Surgery and Surgical Oncology, Robert-Rossle-Klinik at the Max Delbrück Centre for Molecular Medicine, Berlin, 13125, Germany
SOURCE: Gut (2000), 46(3), 359-366
CODEN: GUTTAK; ISSN: 0017-5749
PUBLISHER: BMJ Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Biosynthesis of carbohydrate structures is tissue specific and developmentally regulated by glycosyl-transferases such as fucosyltransferases, **sialyltransferases**, and N-acetylglucosaminyltransferases. During carcinogenesis, aberrant glycosylation leads to the development of tumor subpopulations with different adhesion properties. Therefore alterations in glycosyltransferase mRNA expression in colorectal carcinomas were examined by semiquant. reverse transcription-polymerase chain reaction (RT-PCR). Colorectal carcinoma specimens were classified and characterized according to the WHO/UICC system. Expression of fucosyltransferases FT-I, FT-III, FT-IV, FT-V, FT-VI, and FT-VII, **sialyltransferases** ST3Gal-I, ST3Gal-III, ST3Gal-IV, and ST6Gal-I, β 1,4-galactosyltransferase, and β 1,6-Acetylglucosaminyltransferase V (GNT-V) was screened simultaneously in exts. of 22 homogenized tumor specimens by RT-PCR and compared with corresponding mucosa from each patient. Also 12 adenomas and 17 liver metastases of colorectal carcinomas were examined GNT-V expression was

enhanced in colorectal adenomas ($p = 0.039$), carcinomas ($p < 0.001$), and liver metastases of colorectal carcinomas ($p < 0.001$). Also, expression of fucosyltransferase FT-IV was increased in colorectal adenomas ($p = 0.039$) and carcinomas ($p < 0.001$). In addition, fucosyltransferase FT-I ($p < 0.001$) and **sialyltransferases** ST6Gal-I ($p = 0.004$) and ST3Gal-III ($p = 0.001$) showed increased expression in carcinoma specimens. On the other hand, fucosyltransferase FT-III was less abundantly expressed in carcinomas exhibiting distant metastases ($p = 0.046$) and in highly invasive tumors ($p = 0.041$). Glycosyltransferase mRNA expression is significantly altered in colorectal adenomas and carcinomas **isolated** from surgical specimens. RT-PCR determination of specific glycosyltransferases may be helpful

for earlier detection of carcinomas and for tumor prognosis.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 32 OF 37 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2000386324 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10894948
TITLE: Comparison of genomic structures of four members of beta-galactoside alpha_{2,3}-**sialyltransferase** genes in the mouse.
AUTHOR: Takashima S; Tsuji S
CORPORATE SOURCE: Molecular Glycobiology, Frontier Research Program, The Institute of Physical and Chemical Research (RIKEN), Wako, Saitama, Japan.
SOURCE: Cytogenetics and cell genetics, (2000) 89 (1-2) 101-6.
Journal code: 0367735. ISSN: 0301-0171.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 20000818
Last Updated on STN: 20000818
Entered Medline: 20000809

AB The mouse genes encoding beta-galactoside alpha_{2,3}-**sialyltransferases**-Siat4 (ST3Gal I), Siat5 (ST3Gal II), Siat3 (ST3Gal III), and Siat4c (ST3Gal IV)-were **isolated** and characterized. Siat4 and Siat5 comprise 8.4 and 14 kb, respectively, and are composed of six exons each. The genomic structures of the two genes were similar. Siat3 and Siat4c comprise over 100 and 9.7 kb, respectively, and are composed of 12 and 10 exons, respectively. Although the genomic sizes of these genes differ, some of their exon structures are significantly similar. These results suggest that the gene pair Siat4 and Siat5 arose from a common ancestral gene, as did the two genes Siat3 and Siat4c.
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L16 ANSWER 33 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:386065 CAPLUS
DOCUMENT NUMBER: 127:118870
TITLE: Mouse β -galactoside $\alpha_{2,3}$ -**sialyltransferases**: comparison of in vitro substrate specificities and tissue specific expression
AUTHOR(S): Kono, Mari; Ohyama, Yuji; Lee, Young-Choon; Hamamoto, Toshiro; Kojima, Naoya; Tsuji, Shuichi
CORPORATE SOURCE: Molecular Glycobiology, Frontier Research Program, The Institute of Physical and Chemical Research (RIKEN), Wako, Saitama, 351-01, Japan
SOURCE: Glycobiology (1997), 7(4), 469-479
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Four types of β -galactoside α 2,3- sialyltransferase (ST3Gal I-IV) have been cloned from several animals, but some contradictory observations regarding their substrate specificities and expression have been reported. Therefore, it is necessary to concurrently analyze the substrate specificities of the four enzymes, of which the source should be one animal. Accordingly, the acceptor substrate specificities and gene expression of mST3Gal I-IV were analyzed. Since the authors had already cloned ST3Gal I and II, as previously reported (Lee, Y.-C. et al., Eur. J. Biochem., 216, 377-385 (1993); J. Biol. Chemical, 269, 10028-10033 (1994)), the cDNAs of ST3Gal III and IV were cloned from mouse cDNA libraries. Each of the four enzymes was expressed in COS-7 cells as a recombinant enzyme fused with protein A, and applied on an IgG-Sepharose gel to eliminate endogenous sialyltransferase activity. ST3Gal I and II showed the highest activity toward Gal β 1,3GalNAc (type III), very low activity toward Gal β 1,3-GlcNAc (type I), but none toward Gal β 1,4GlcNAc (type II). ST3Gal III and IV exhibited high activity toward the type III one. On the other hand, asialo-GM1 (Gg4Cer) was as good a substrate for ST3Gal I and II as the type III disaccharide, though ST3Gal III and IV hardly utilized glycolipids as substrates, as indicated by in vitro expts. Northern blot anal. revealed that enzymes of the ST3Gal-family are expressed mainly in a tissue-specific manner. The ST3Gal I gene was strongly expressed in spleen and salivary gland, and weakly in brain, liver, heart, kidney, and thymus. The ST3Gal II gene was strongly expressed in brain, and weakly in colon, thymus, salivary gland, and testis, and developmentally expressed in liver, heart, kidney, and spleen. The ST3Gal III and IV genes were expressed in a wide variety of tissues. These differences in tissue specific expression suggest the expression of each ST3Gal influences the distribution of sialyl-glycoconjugates in vivo.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1996:706050 CAPLUS

DOCUMENT NUMBER: 126:1949

TITLE: An efficient expression vector for extracellular secretion in mammalian cells

AUTHOR(S): Lee, Young-Choon; Kim, Cheorl-Ho; Tsuji, Shuichi

CORPORATE SOURCE: Division Molecular Glycobiology, Korea Research Institute Bioscience Biotechnology, Taejon, 305-600, S. Korea

SOURCE: Molecules and Cells (1996), 6(5), 552-556

CODEN: MOCEEK; ISSN: 1016-8478

PUBLISHER: Korean Society of Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An expression-secretion vector for mammalian cells, pcDSA, which expresses a cloned gene under the control of the SR α promoter (SV40 promoter/enhancer and HTLV-1 LTR) has been newly constructed. This vector contains fragments encoding the 5' untranslated leader sequence from AMV RNA4, the signal peptide of mouse IgM and IgG-binding domain of protein A in front of cloning sites. Joining in-frame a cDNA fragment with cloning sites just downstream of the COOH terminus of the IgG-binding domain of protein A enables the cDNA product to be secreted as a protein fused with that domain. This allows an easy isolation of its secreted product by affinity chromatog. on IgG-Sepharose. When the genes encoding the catalytic domains of mammalian sialyltransferase (ST3Gal I) were cloned into the vector plasmid and then transfected into COS-7 cells, active ST3Gal I was efficiently secreted into the culture medium. It was rapidly purified almost to homogeneity by one-step IgG-Sepharose affinity chromatog.

L16 ANSWER 35 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1995:642411 CAPLUS
DOCUMENT NUMBER: 123:333367
TITLE: Molecular cloning and expression of chick
Gal β 1,3GalNAc α 2,3-
sialyltransferase
AUTHOR(S): Kurosawa, Nobuyuki; Hamamoto, Toshiro; Inoue, Mio;
Tsuji, Shuichi
CORPORATE SOURCE: Mol. Glycobiol., Inst. Physical Chem. Res., Saitama,
351-01, Japan
SOURCE: Biochimica et Biophysica Acta (1995), 1244(1), 216-22
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A cDNA clone encoding chick Gal β 1,3GalNAc α 2,3-
sialyltransferase (ST3Gal I) was
isolated from a chick embryo brain cDNA library. The cDNA
sequence included an open reading frame coding for 342 amino acids, and
the deduced amino acid sequence showed 64% identity with that of the mouse
enzyme. Northern blot anal. of chick embryos revealed that the ST3Gal I
gene was expressed in early embryonic stages. The identity of the enzyme
was confirmed by construction of a recombinant **sialyltransferase**
in which the N-terminal part including the cytoplasmic tail and signal
anchor domain was replaced with an Ig signal peptide sequence. This
enzyme expressed in COS-7 cells exhibited transferase activity similar to
that of mouse **ST3Gal I**.

L16 ANSWER 36 OF 37 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.
on STN

ACCESSION NUMBER: 95:385245 SCISEARCH
THE GENUINE ARTICLE: RA633
TITLE: MOLECULAR-CLONING AND EXPRESSION OF CHICK
GAL-BETA-1,3GALNAC ALPHA-2,3-SIALYLTRANSFERASE
AUTHOR: KUROSAWA N; HAMAMOTO T; INOUE M; TSUJI S (Reprint)
CORPORATE SOURCE: INST PHYS & CHEM RES, FRONTIER RES PROGRAM, WAKO, SAITAMA
35101, JAPAN (Reprint); INST PHYS & CHEM RES, FRONTIER RES
PROGRAM, WAKO, SAITAMA 35101, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA-GENERAL SUBJECTS, (11 MAY
1995) Vol. 1244, No. 1, pp. 216-222.
ISSN: 0304-4165.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 36

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A cDNA clone encoding chick Gal beta 1,3GalNAc alpha 2,3-
sialyltransferase (ST3Gal I) was
isolated from a chick embryo brain cDNA library. The cDNA sequence
included an open reading frame coding for 342 amino acids, and the deduced
amino acid sequence showed 64% identity with that of the mouse enzyme.
Northern blot analysis of chick embryos revealed that the **ST3Gal**
I gene was expressed in early embryonic stages. The identity of
the enzyme was confirmed by construction of a recombinant
sialyltransferase in which the N-terminal part including the
cytoplasmic tail and signal anchor domain was replaced with an
immunoglobulin signal peptide sequence. This enzyme expressed in COS-7
cells exhibited transferase activity similar to that of mouse
ST3Gal I.

L16 ANSWER 37 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:552389 CAPLUS

DOCUMENT NUMBER: 123:48837
TITLE: β -Galactoside α 2,3-
sialyltransferases: Characterization of the
cloned two types of Gal β 1,3GalNAc α 2,3-
sialyltransferase
AUTHOR(S): Lee, Young-Choon
CORPORATE SOURCE: Frontier Research Program, RIKEN, Japan
SOURCE: RIKEN Review (1995), 8, 17-18
CODEN: RIREE6; ISSN: 0919-3405
DOCUMENT TYPE: Journal
LANGUAGE: English
AB CDNAs encoding four kinds of β -galactoside α 2,3-
sialyltransferases have so far been **isolated** from
various species or tissues. They have a putative domain structure
consisting of four regions, like that in other glycosyltransferases, and
exhibit tissue-specific expression. These enzymes expressed in mammalian
cell lines exhibited strict acceptor substrate specificities. Recently,
we have cloned two kinds of cDNA encoding mouse brain Gal β 1,3GalNAc
 α 2,3- **sialyltransferases** (**ST3Gal I** and
II) showing a clear difference in acceptor substrate preference.

ACCESSION NUMBER: 1996:706050 CAPLUS

DOCUMENT NUMBER: 126:1949

TITLE: An efficient expression vector for extracellular secretion in mammalian cells

AUTHOR(S): Lee, Young-Choon; Kim, Cheorl-Ho; Tsuji, Shuichi

CORPORATE SOURCE: Division Molecular Glycobiology, Korea Research

Institute Bioscience Biotechnology, Taejon, 305-600,

S. Korea

SOURCE: Molecules and Cells (1996), 6(5), 552-556

CODEN: MOCEEK; ISSN: 1016-8478

PUBLISHER: Korean Society of Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An expression-secretion vector for mammalian cells, pcDSA, which expresses a cloned gene under the control of the SR α promoter (SV40 promoter/enhancer and HTLV-1 LTR) has been newly constructed. This vector contains fragments encoding the 5' untranslated leader sequence from AMV RNA4, the signal peptide of mouse IgM and IgG-binding domain of protein A in front of cloning sites. Joining in-frame a cDNA fragment with cloning sites just downstream of the COOH terminus of the IgG-binding domain of protein A enables the cDNA product to be secreted as a protein fused with that domain. This allows an easy isolation of its secreted product by affinity chromatog. on IgG-Sepharose. When the genes encoding the catalytic domains of mammalian sialyltransferase (ST3Gal I) were cloned into the vector plasmid and then transfected into COS-7 cells, active ST3Gal I was efficiently secreted into the culture medium. It was rapidly purified almost to homogeneity by one-step IgG-Sepharose affinity chromatog.